

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/076727 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/IL2005/000155

(22) International Filing Date: 8 February 2005 (08.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
160365 12 February 2004 (12.02.2004) IL

(71) Applicant (for all designated States except US): **NEX-ENSE LTD.** [IL/IL]; Manhattan Building, 2nd Floor,, 1 HaKishon Street, P.O. Box 13078, 81220 Yavne (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ARIAV, Arie** [IL/IL]; 122 Kochav Michael, 79304 Doar-Na Hof Ashkelon (IL). **RAVITCH, Vladimir** [IL/IL]; 27/24 Ort Street, 78360 Ashkelon (IL). **NITSAN, David** [IL/IL]; 39 Ben Gurion Street, 58017 Azur (IL).

(74) Agent: **G.E. EHRLICH (1995) LTD.**; 11 Menachem Begin Street, 52 521 Ramat Gan (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR DETECTING PANEL CONDITIONS

(57) Abstract: A method and apparatus for detecting a predetermined condition of a panel, by: transmitting a cyclically-repeating energy wave through the material of the panel from a first location to a second location; measuring the transit time of the cyclically-repeating energy wave from the first location to the second location; and utilizing the measured transit time to detect the predetermined condition of the panel. Examples are described wherein the condition to be detected is: a force on, the temperature of, a deformation in, the fatigue condition of, or a fracture in, a structural panel; the presence of a force applied to, water on, or a breakage in, a window panel; and the presence of an object on a floor panel.



WO 2005/076727 A2